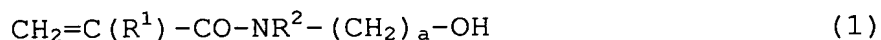


Claims

1. A water-soluble resin having a structure corresponding to a copolymer of a monomer mixture containing a vinylic monomer (A) having a hydroxyl group and an amido bond, and a vinylic monomer (B) having a cationic group.

2. The water-soluble resin of claim 1, wherein the vinylic monomer (A) having a hydroxyl group and an amido bond is represented by the formula (1):

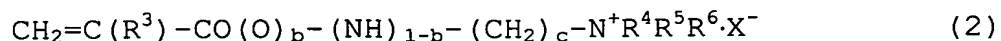


wherein R^1 represents a hydrogen atom, or a methyl group; R^2 represents a hydrogen atom, or an alkyl group or a hydroxyalkyl group having 1 to 4 carbon atoms; a is an integer from 1 to 4.

3. The water-soluble resin of claim 2, wherein a in the formula (1) is 2.

4. The water-soluble resin of any one of claims 1 to 3, wherein the vinylic monomer (A) having a hydroxyl group and an amido bond is hydroxyethyl acrylamide, or hydroxyethyl methacrylamide.

5. The water-soluble resin of any one of claims 1 to 4, wherein the vinylic monomer (B) having a cationic group is represented by the formula (2):



wherein R^3 represents a hydrogen atom, or a methyl group; R^4

and R^5 each independently represent an alkyl group or an aryl group or an aralkyl group having 1 to 24 carbon atoms; R^6 represents a hydrogen atom, an alkyl group or an aryl group or an aralkyl group having 1 to 24 carbon atoms, or $\text{CH}_2\text{-CH(OH)-CH}_2\text{-N}^+\text{R}^7\text{R}^8\text{R}^9\text{.Y}^-$; R^7 to R^9 each independently represent an alkyl group or an aryl group or an aralkyl group having 1 to 24 carbon atoms; X^- and Y^- each independently represent an anion; b represents 0, or 1; and c represents an integer from 1 to 10.

6. The water-soluble resin of any one of claims 1 to 5, wherein the vinylic monomer (B) having a cationic group is at least one selected from the group consisting of methacroyloxyethyl-trimethylammonium chloride, acroylaminopropyl-trimethylammonium chloride, and methacroylaminopropyl-trimethylammonium chloride.

7. The water-soluble resin of any one of claims 1 to 6, wherein the monomer mixture containing a vinylic monomer (A) having a hydroxyl group and an amido bond, and a vinylic monomer (B) having a cationic group contains 20 to 90% by weight of the vinylic monomer (A) having a hydroxyl group and an amido bond, and 10 to 80% by weight of the vinylic monomer (B) having a cationic group.

8. The water-soluble resin of any one of claims 1 to 7, wherein weight average molecular weight is 5,000 to 5,000,000.

9. The water-soluble resin of any one of claims 1 to 8,

wherein the water soluble-resin can form an aqueous solution having a concentration of at least 5% by weight.

10. The water-soluble resin of any one of claims 1 to 9, wherein the vinylic monomer (A) having a hydroxyl group and an amido bond is hydroxyethyl acrylamide, and the vinylic monomer (B) having a cationic group is at least one selected from the group consisting of (meth)acroyloxyethyltrimethylammonium chloride, acroylaminopropyltrimethylammonium chloride, and (meth)acroylaminopropyltrimethylammonium chloride.

11. A hair cosmetic material containing the water-soluble resin of any one of claims 1 to 10.

12. The hair cosmetic material of claim 11, further containing an anionic surfactant.

13. The hair cosmetic material of claim 12, which is an aqueous solution containing 0.05 to 5% by weight of the water-soluble resin and 5 to 40% by weight of the anionic surfactant.

14. A silicone oil adsorption assistant comprising the water-soluble resin of any one of claims 1 to 10.